Travancore Medical College Hospital
A Unit of Quilon Medical Trust

MAY 2025
HIPC NEWSLETTER

In This Issue

Important Dates

| World Hand Hygiene Day-May 5th
| Global Hand washing day –October 15th
| AMR Awareness Week-18-24 November
| International Infection Prevention Week –Every 3rd Week Of October

Guideline Updates Quick Links

·https://www.cdc.gov/hai/vap/vap.html
·https://www.cdc.gov/nhsn/pdfs/pscmanual/6pscvapcurrent.pdf
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9163435/#:~:text=Batra%20P.%2C%20Soni,Google%20Scholar%5D
https://www.hopkinsmedicine.org/health/conditions-and-diseases/surgical-site-infections

SSI (SURGICAL SITE INFECTION)

SSI refers to an infection that occurs after surgery in the part of the body where the surgery took place .SSIs can sometimes be superficial infections involving the skin only. Other SSIs are more serious and can involve tissue under the skin, organ, or implanted material.

SSI is also defined as an infection that occur within 30 days after the operation and involves the skin and subcutaneous tissue of the incision(superficial incisional) and /or the deep soft tissue(for example ,fascia, muscle)of the incision(deep incisional) and /or any part of the anatomy(for example, organs and spaces) other than the incision that was opened or manipulated during an operation(organ /space).In some cases ,SSI may appear up to 90 days after surgery. These are operations involving superficial implants

Wound Classifications:

- **CLEAN:**

These wounds are uninfected, with no inflammation, and the surgical site does not involve the respiratory, alimentary, genital, or uninfected urinary tract.

- **CLEAN-CONTAMINATED:**

These wounds have no evidence of infection at the time of surgery but involve an internal organ, increasing the risk of contamination.

- **CONTAMINATED:**

These wounds involve operating on an internal organ with spillage of contents into the wound.

- **DIRTY / INFECTED:**

These wounds have a known infection at the time of surgery.

TYPES

Superficial Incisional SSI: This occurs within the skin and subcutaneous tissues of the incision.

There are 2 specific types of superficial SSIs:

1.Sperficial Incisional Primary(SIP):

It is identified in the Primary incision in a patient that has had an operation with one or more incision(eg: C-Section incision or Chest incision for CABG)

2.Superfical Incisional Secondary(SIS):

It is identified in the secondary incision in a patient that has had an operation with more than one incision(eg :Donor site incision for CABG) .

Deep Incisional SSI: This affects the deeper tissues of the incision, such as fascia and muscle.

There are 2 specific types of Deep incisional SSIs:

1.Deep Incisional Primary:

It is identified in the Primary incision in a patient that has had an operation with one or more incision(eg: C-Section incision or Chest incision for CABG).

2. .Deep Incisional Secondary:

It is identified in the secondary incision in a patient that has had an operation with more than one incision(eg :Donor site incision for CABG) .

Organ/Space SSI: This type of infection involves organs or spaces within the body that were opened or manipulated during the surgery.

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SIGNS AND SYMPTOMS OF SURGICAL SITE INFECTIONS

Any SSI may cause redness, delayed healing, fever, pain, tenderness, warmth, or swelling. These are the other signs and symptoms for specific types of SSI:

▸ **A superficial incisional SSI :**

- Drainage of pus from the superficial incision.
- Pain, tenderness, localized swelling ,redness or heat.
- Positive culture from aseptically collected specimen.

▸ **A deep incisional SSI:**

- Pus discharge from the deep incision.
- Spontaneous dehiscence or “gaping “of wound.
- Fever >38 degree Celsius.
- Positive culture from aseptically collected specimen.

▸ **An organ or space SSI :**

- Purulent drainage from a drain that is placed into the organ/space
- Organisms are identified from fluid or tissue in the organ/space by a culture.
- An abscess or other evidence of infection involving the organ/space that are detected on gross anatomical or histopathological examination ,or imaging test evidence suggestive of infection.

RISK FACTORS

Patient-Related Factors:

- **Diabetes:** Poorly controlled diabetes significantly increases the risk of infection due to impaired wound healing.
- **Obesity:** Obesity can affect wound healing and increase the risk of infection.
- **Smoking:** Smoking impairs blood flow and wound healing, increasing the risk of infection.
- **Immunosuppression:** Conditions like cancer, HIV/AIDS, or medications that suppress the immune system can increase susceptibility to infection.

- **Malnutrition:** Poor nutrition can impair the body's ability to fight off infection.
- **Older age:** Elderly individuals may have a weakened immune system and slower wound healing.
- **Pre-existing infection:** Having an existing infection can increase the risk of SSI during surgery.
- **Low serum albumin:** Low levels of serum albumin, a protein in the blood, can be associated with increased risk of SSI.

PROCEDURE-RELATED FACTORS:

- **Prolonged surgery:**

Surgery lasting longer than 2 hours increases the risk of infection.

- **Type of surgery:**

Certain surgeries, like abdominal surgery or those involving the oral cavity, may carry a higher risk of SSI.

- **Emergency surgery:**

Patients undergoing emergency surgery may be at higher risk due to the urgency and potential for other complications.

- **Inadequate infection control practices:**

Poor adherence to infection control guidelines and substandard sterilization practices can contribute to SSI.

OTHER FACTORS:

- **Operating room environment:**

Factors like ventilation, temperature, and contamination levels in the operating room can influence the risk of infection.

- **Staff skills and practices:**

The skills and practices of the surgical team, including the surgeon, nurses, and other staff, can impact infection rates.

- **Use of antibiotics:**

While antibiotics can help prevent infection, overuse or inappropriate use can lead to antibiotic-resistant bacteria, increasing the risk of SS

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PREVENTION

Most surgical site infections can be prevented if appropriate strategies are implemented.

Nutritional formulas: Consider the administration of oral or enteral multiple nutrient-enhanced nutritional formulas for the purpose of preventing SSI in underweight patients who undergo major surgical operations.

Bathing before surgery: It is good clinical practice for patients to bath or shower before surgery. Either a plain soap or an antiseptic soap could be used for this purpose.

Hair Removal: In patients undergoing any surgical procedure, hair should either NOT be removed or, if absolutely necessary, should only be removed with a clipper. Shaving is strongly discouraged at all times, whether preoperatively or in the OT

Intranasal Mupirocin : closure should notbe used for the purpose of preventing SSI. Consider treating patients with known nasal carriage of S. aureusundergoing other types of surgery with perioperative intranasal applications of mupirocin 2% ointment with or without a combination of CHG body wash.

Antibiotics & MBP (Mechanical bowel preparation) : Preoperative oral antibiotics combined with MBP should be used to reduce the risk of SSI in adult patients undergoing elective colorectal surgery.

Warming devices: Warming devices should be used in the operating room and during the surgical procedure for patient body warming with the purpose of reducing SSI

Blood glucose control : Protocols for intensive preoperative blood glucose control should be used for both diabetic and non-diabetic adult patients undergoing surgical procedures. To prevent Surgical Site Infections maintaining adequate glycemic control , aiming for blood glucose levels between 80 and 140 mg/dl.

Fluid therapy : Goal-directed fluid therapy should be used intraoperatively for the purpose of reducing SSI

Drapes and gowns : Either sterile disposable non-woven or sterile reusable woven drapes and surgical gowns can be used during surgical operations for the purpose of preventing SSI.

Povidone iodine irrigation : Consider the use of irrigation of the incisional wound with an aqueous povidone iodine solution before closure for the purpose of preventing SSI, particularly in clean and clean-contaminated wounds.

Wound drains: The wound drain should be removed when clinically indicated. No evidence was found to allow making a recommendation on the optimal timing of wound drain removal for the purpose of preventing SSI.

Advanced dressings: Advanced dressing of any type should not be used over a standard dressing on primarily closed surgical wounds for the purpose of preventing SSI.

Negative Pressure Wound Therapy Prophylactic negative pressure wound therapy may be used on primarily closed surgical incisions in high-risk wounds and, taking resources into account, for the purpose of preventing SSI..

Peri-op antibiotics Perioperative surgical antibiotic prophylaxis should not be continued due to the presence of a wound drain for the purpose of preventing SSI.

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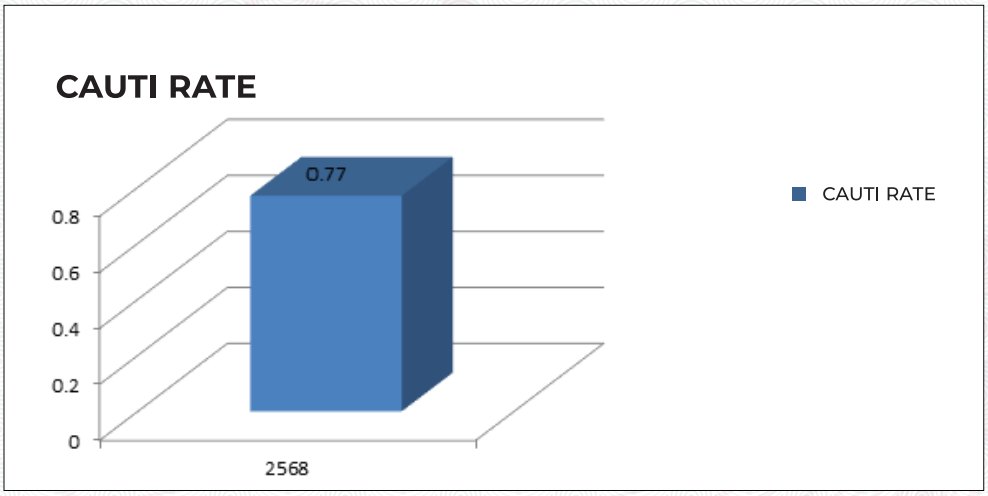
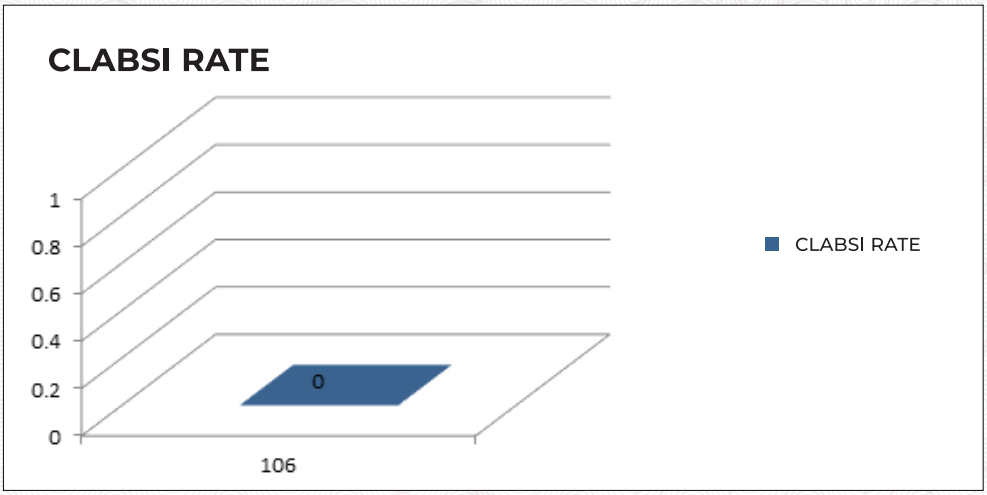
HAI DATA - APRIL 2025

CAUTI RATE - APRIL 2025



CLABSI RATE - APRIL 2025



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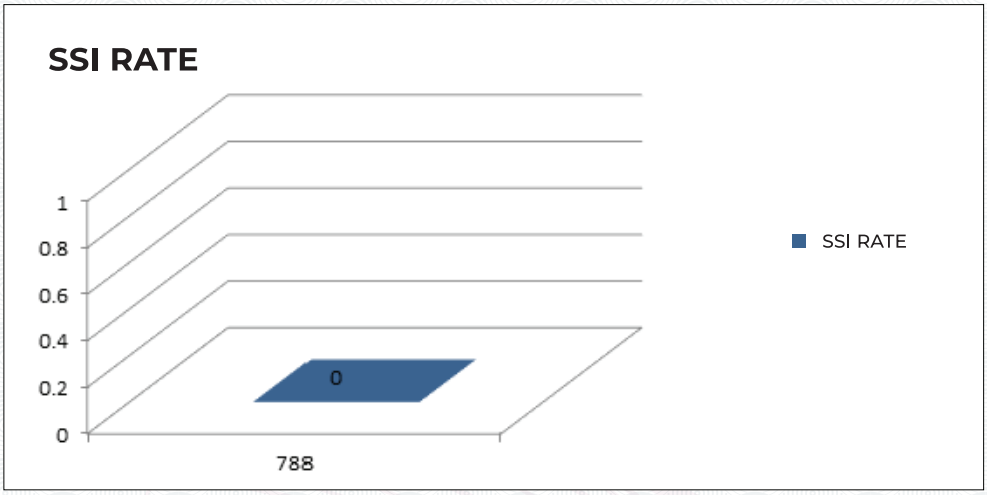
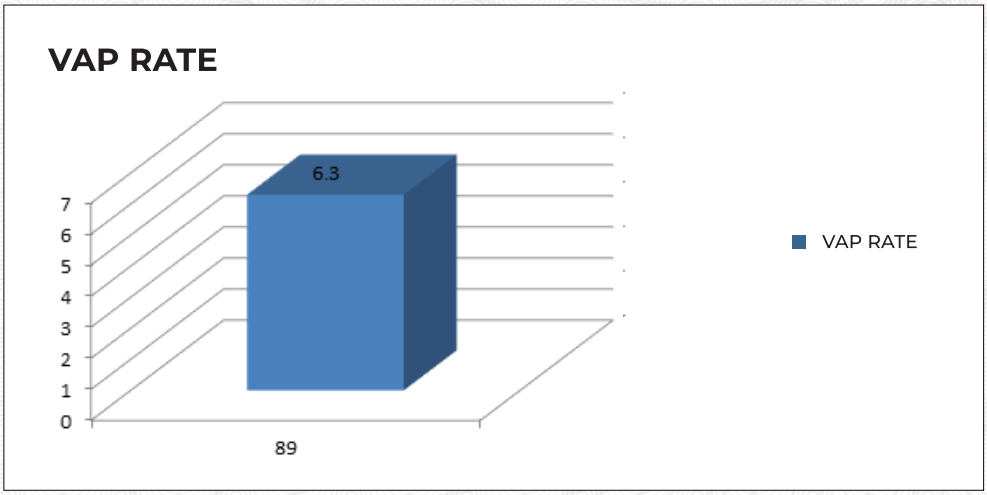
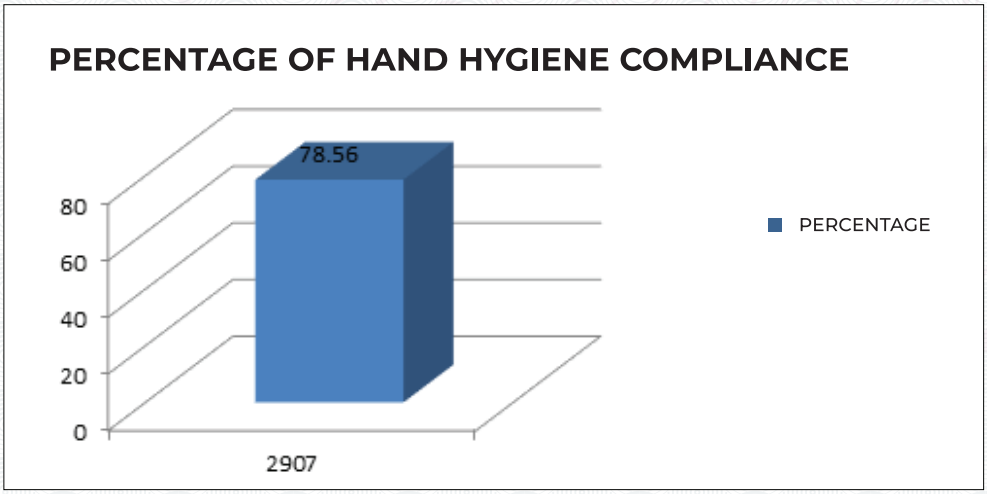
SSI RATE - APRIL 2025



VAP RATE - APRIL 2025



PERCENTAGE OF COMPLIANCE TO HAND HYGIENE- APRIL 2025



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WORLD HAND HYGIENE DAY-5TH MAY 2025

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PATIENT SAFETY & QUALITY OF CARE
NABH
ACCREDITED

WORLD HAND HYGIENE DAY-5TH MAY 2025